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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/824,367	04/02/2001	Koji Obata	450100-03146	7171

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EXAMINER

TANG, KAREN C

ART UNIT PAPER NUMBER

2151

DATE MAILED: 09/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/824,367

Applicant(s)

OBATA ET AL.

Examiner

Karen C. Tang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 12 July 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 April 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this

Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 3, 4, 5-7, 10 and 11 are rejected under 35 U.S.C. 102(e) as being anticipated by Kiriya (US 5,561,466).

1. Referring to Claims 1, 3 and 4, Kiriya discloses a data multiplexer for performing time division multiplexing of a plurality of bit streams, said data multiplexer comprising: an extracting means for extracting information (demultiplexing) necessary for multiplexing processing from each of said plurality of bit streams (refer to Col 3, Lines 1-26); a first calculating means for calculating a time division multiplexing cycle (Examiner interprets that each cycle is equivalent to each of the each VBR/ABR stream of data that supply to the buffer, Time period, refer to Col 5, Lines 1-45) for each of said plurality of bit streams, such that a separator separates

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multiplexed data by a specified method on the basis of said information extracted by said extracting means (refer to Col 9, 10, 13 and 14); and a multiplexing means for performing time division multiplexing of said plurality of bit streams (it is VBR and ABR cells are different bit streams, refer to Col 9 and 10) on the basis of a result calculated by said first calculating means (refer to Col 10); wherein different multiplexing cycle equations are used to calculate multiplexing cycles of each of said plurality of bit streams (VBR is one calculation, CBR is different calculation, refer to Col 6, 9 and 10, which produce by different processor/controller).

5. Referring to Claim 5, Kiriya discloses wherein a bit stream is a video stream (refer to Col 7).

6. Referring to Claim 6, Kiriya discloses wherein a bit stream is an audio stream (refer to Col 7).

7. Referring to Claim 7, Kiriya discloses wherein a bit stream is a system data stream (audio/video stream is the system data stream, refer to Col 7 and 8).

10. Referring to Claim 10, Kiriya discloses as access unit information detector for extracting access unit information (demultiplexer device, refer to Col 9); and a multiplexing scheduler (processor 55, refer to Col 7) means for generating schedule information by using said access unit information.

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11. Referring to Claim 11, Kiriya discloses the steps of: extracting access unit information from an access unit information detector (demultiplexer device, refer to Col 9); and generating schedule information from a multiplexing scheduler (processor 55, refer to Col 7) means by using said access unit information.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kiriya (US 5,561,466) in view of Fukuda et al hereinafter Fukuda (US 5, 937,138).

2. Referring to Claim 2, Kiriya discloses a virtual data buffer (buffer memory, refer to Col 7, Lines 60-67) of said separator (refer to Col 3), wherein said multiplexing means determines an order in which said plurality of bit streams (it is VBR and ABR cells are different bit streams, refer to Col 9 and 10) are multiplexed (refer to Col 7, Lines 1-25) based on the occupancy rate (read rate, refer to Col 7)

Kiriya does not indicate calculate the occupancy rate for buffer.

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Fukuda discloses calculating the occupancy rate (refer to Col 65-71).

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine Kiriyaama and Fukuda due to the fact that both invention utilized multiplexing/demultiplexing technology to calculate the desire information. The suggestion/motivation would have been that Kiriyaama discloses the need to find the buffer occupancy information (refer to Col 7, 8 and 9).

Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kiriyaama (US 5,561,466) in view of Fukuda et al hereinafter Fukuda in further view of AAPA (Applicant Admit Prior Art)

8. Referring to Claim 8, Kiriyaama discloses transfer usage of buffer and plurality of bit streams (refer to Col 7).

Neither Kiriyaama nor Fukuda does not expressly indicate transferring data utilized leaking method, wherein said specified method is a leak method that is used to transfer said plurality of bit streams between buffers.

AAPA indicate indicate transferring data utilized leaking method, wherein said specified method is a leak method that is used to transfer said plurality of bit streams between buffers (refer to page 7).

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine Kiriyaama, Fukuda and AAPA due to the fact that need to calculate delay for the buffer occupancy and efficiency.

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The suggestion/motivation would have been that by utilizing the leaking method to transfer data between buffers, to reduce the error while delivering data information, so that the data wouldn't be loss.

9. Referring Claim 9, Kiriya discloses transfer usage of buffer and plurality of bit streams (refer to Col 7).

Neither Kiriya nor Fukuda does not expressly indicate transferring data utilized vbv\_method, wherein said specified method is a leak method that is used to transfer said plurality of bit streams between buffers.

AAPA indicate indicates transferring data utilized vbv\_method, wherein said specified method is a leak method that is used to transfer said plurality of bit streams between buffers (refer to Page 8).

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine Kiriya, Fukuda and AAPA due to the fact that need to calculate delay for the buffer occupancy and efficiency.

The suggestion/motivation would have been that by utilizing the vbv-delay method to transfer data between buffers, to reduce the error while delivering data information, so that the data wouldn't be loss.

### ***Conclusion***

A shortened statutory period for reply to this Office action is set to expire **THREE MONTHS** from the mailing date of this action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karen C. Tang whose telephone number is (571)272-3116. The examiner can normally be reached on M-F 7 - 3.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Zarni Maung can be reached on (571)272-3939. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KT  
Karen Tang  
9/20/05

  
ZARNI MAUNG  
SUPERVISORY PATENT EXAMINER